

0072757

HNF-30206  
Revision 0

# 241-Z D-5 Cell RCRA Closure

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the  
U.S. Department of Energy under Contract DE-AC06-96RL13200

**FLUOR**®

P.O. Box 1000  
Richland, Washington

**RECEIVED**  
APR 25 2007  
**EDMC**

Approved for Public Release;  
Further Dissemination Unlimited

# 241-Z D-5 Cell RCRA Closure

Document Type: ENV

R. W. Bloom  
Fluor Hanford, Inc.

Date Published  
July 2006

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the  
U.S. Department of Energy under Contract DE-AC06-96RL13200

**FLUOR.**

P.O. Box 1000  
Richland, Washington

*J. D. Arndel* 07/07/2006  
Release Approval Date

Approved for Public Release;  
Further Dissemination Unlimited

DOES NOT CONTAIN CLASSIFIED OR  
UNCLASSIFIED CONTROLLED  
NUCLEAR INFORMATION

Reviewing  
Official / ADC: *91 R 110*  
Date: 7/6/06

**TRADEMARK DISCLAIMER**

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

This report has been reproduced from the best available copy.

Printed in the United States of America

**CONTENTS**

<b>Background</b> .....	1
<b>Purpose</b> .....	1
<b>Closure Activity Summary</b> .....	1
<b>Closure Decontamination and Verification Checklist</b> .....	3
Tank Closure (Closure plan reference - 7.2.1).....	3
D-5 Tank internals (7.2.1.1) .....	3
D-5 tank external surface (7.2.1.2).....	4
Piping and Ancillary Equipment Closure (7.2.2).....	4
Process piping – .....	4
Transfer pump – Air driven diaphragm .....	5
Agitator .....	5
Activities for Closure of the Concrete (7.2.3).....	6
Tank cell floor and sump .....	6
Tank cell walls .....	6
Void space beneath the tank.....	7
Soil beneath the cell (7.2.4) .....	7
<b>Conclusion</b> .....	7
<b>References</b> .....	8

**ATTACHMENTS****Attachment A – Sample Data**

Pipe Sampling Data (Samples B1FXY6, B1FXY7, B1FXY8).....	A-1
D-5 Batch 288 Sampling Data.....	A-2
D-5 Cell Sampling Data (B1J7N3, B1J7N4, B1J7N5, B1J7N6).....	A-3

**Attachment B– Cell Activity log**

## Background

The 241-Z Treatment and Storage Tanks (241-Z) *Resource Conservation and Recovery Act* (RCRA) of 1976 treatment, storage, and/or disposal (TSD) unit consists of below-grade tanks D-4, D-5, D-7, D-8 and an overflow tank located in a concrete containment vault; and its associated ancillary piping and equipment. The tank system is located beneath the 241-Z Building, which is not a portion of the TSD unit. Waste managed at the TSD unit was received via underground piping from PFP sources. Tank D-6 within vault D-6 is a past-practice tank that never operated as a portion of the RCRA unit.

Under DOE/RL-96-82, *Hanford Facility Dangerous Waste Closure Plan, 241-Z Treatment and Storage Tanks* (closure plan), the 241-Z will undergo final or partial clean closure to the performance standards of WAC 173-303-610 with respect to dangerous waste contamination from RCRA operations. The unit will be clean closed if physical closure activities identified in this plan achieve clean closure standards for all 241-Z locations. The scope of closure activities under this plan will be similar to the scope of 241-Z 'terminal cleanout' activities in support of PFP deactivation, that will include but are not limited to tank system decontamination and visual inspections or sampling to verify clean closure levels. Clean closed 241-Z tanks and/or structures will remain after closure for future disposition in conjunction with PFP decommissioning activities.

RCRA Closure activities for the 241-Z Tank system will be completed and documented in phases in conjunction with the terminal cleanout of the various parts of the system. It is anticipated that the closure will be documented in a minimum of five parts for the four tank cells and the remainder of the residuals. Closure verification documentation of each of the tank cells containing RCRA tanks (D-4, D-5, D-7 and D-8) will be generated.

## Purpose

The purpose of this document is to compile the basis of the RCRA closure associated with the 241-Z D-5 Tank.

## Closure Activity Summary

As part of the Tri-Party Agreement milestone M-83-31 the system was emptied and the ability to transfer from the system to Tank Farms was eliminated by securing air to the transfer pumps under work package 2Z-04-08451 as a pre closure activity. All activities associated with Closure of the D-5 tank cell were performed and documented as part of work package 2Z-04-07735. The work record provides a record of action taken on a daily basis in support of system closure. Section 7.2 of the closure plan (DOE/RL-96-82 Rev. 1) outlines the closure activities associated with the closure plan. The portions applicable to the D-5 Cell (Figure 1) including D-5 tank, piping and ancillary equipment, cell floor including sump and void space beneath the tank, cell walls, and soil beneath the cell. All inspections were performed via remote video. Portions of the inspections were

recorded on video tape for later review and to allow capturing of still images for inclusion in the record. Real time video in general provided a better image quality than those captured on tape and provided un-distorted color.

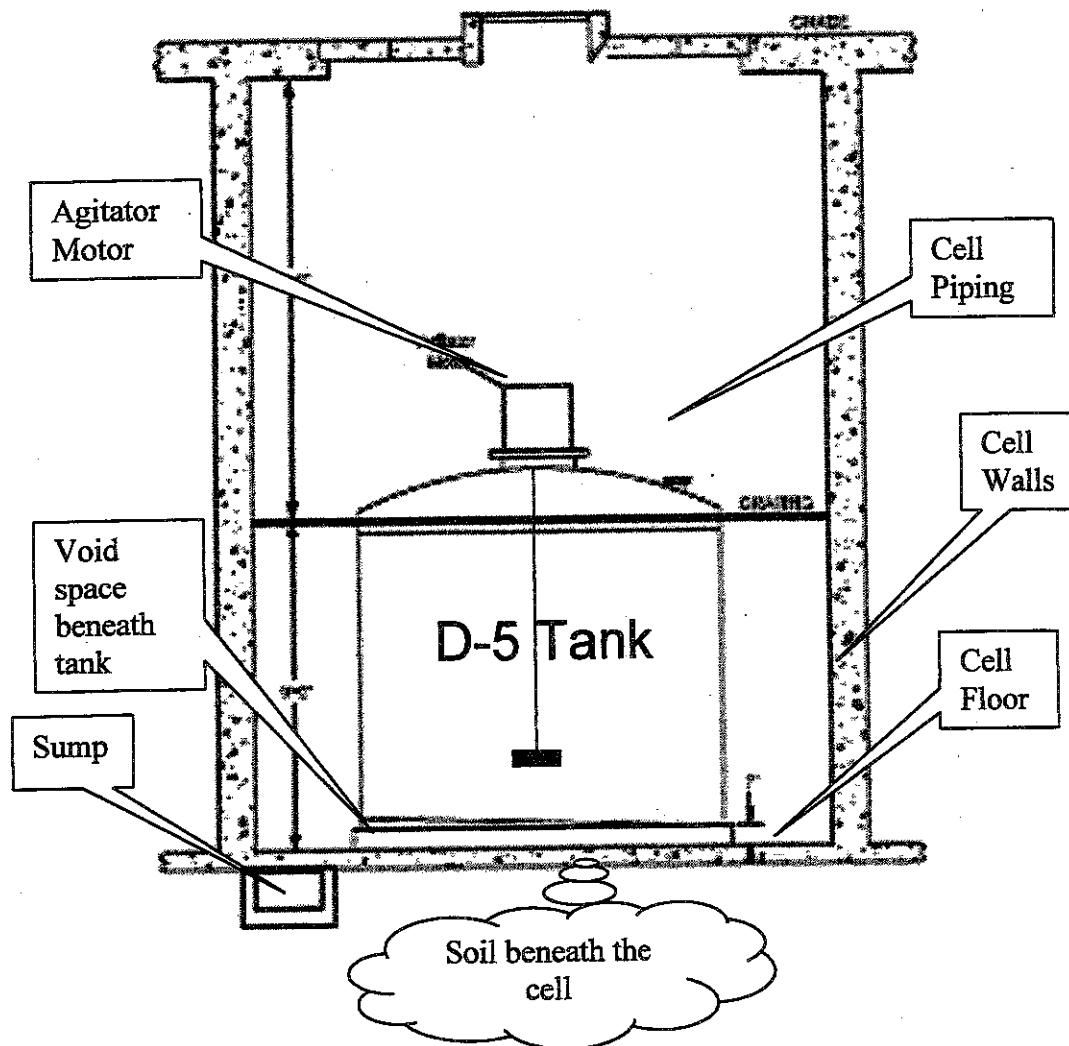


Figure 1

**Closure Decontamination and Verification Checklist**

Tank Closure (Closure plan reference - 7.2.1)

D-5 Tank internals (7.2.1.1)Method of closure: Decontamination/Inspection (6.2.1.1)Material: Stainless SteelDecontamination: Flushing with clean water and manual methods

Description of method used: Prior to initiation of this package during the final transfer to Tank Farms, the D-5 tank and system outlet piping to Tank Farms were flushed with clean water. The flushing process which was performed twice immediately following the final transfer, involved filling the D-5 tank with clean water, and transferring it to Tank Farms through each of the two discharge lines. Initial visual inspection of the internal of the tank indicated a minor build up of material on the bottom of the tank and a "rust" staining of the walls of the tank due to the addition of ferric nitrate to the system prior to transfer to Tank Farms. Access to the internal of the tank was achieved by cutting a 30 by 60 inch access way in the side of the tank. The interior of the tank was decontaminated by physical scraping and use of surfactants to wipe down the walls. Video inspection confirmed removal of the material from the bottom of the tank. Slight rust staining remaining on the sides after cleaning was reviewed and determined to be within clean debris surface requirements (6.2.1.1)\*. Note: The piping entering and leaving this tank system had previously been sampled (B1FXY6, B1FXY7, and B1FXY8) and met the analytical closure standard (6.2.1.2). and the last waste batch samples (Batch 288) did not exceed regulatory limits prior to flushes

Authorized Representative: Richard W. Bloom

Name

 7/6/06

Signature

Date

\* Definition of clean debris surface from Table I, Alternative Treatment Standards for Hazardous Debris (40 CFR 268.45): "Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discoloration's, and soil and waste in cracks, crevices, and pits, may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area".

## 241-Z D-5 Cell RCRA Closure

HNF-30206 Rev. 0

July 2006

### D-5 tank external surface (7.2.1.2)

Method of closure: Inspection/ Sampled (6.2.1.2)

Material: Stainless steel

Decontamination: N/A

Description of method used: Process history of the tank indicated an area where a potential external contamination of the tank had occurred. A portion of this area of potential contamination was sampled and analyzed per HNF-25105 Revision 1. Sample result (B1J7N6) met the analytical closure standard (6.2.1.2).

Authorized Representative: Richard W. Bloom

Name

Signature

Date

### Piping and Ancillary Equipment Closure (7.2.2)

#### Process piping –

Method of closure: Removed (7.1) / Sampled (6.2.1.2).

Material: Stainless Steel

Decontamination: Prior to initiation of this package and final transfer the system piping and tank was flushed with clean water. The lines entering the D-5 tank from D-8 were flushed as part of the final flush of the D-8 tank. The flush of D-8 became part of the final batch transfer to Tank Farms. The lines leaving the D-8 Cell to Tank Farms were flushed as part of the D-5 rinsing described in the D-5 tank internal section.

Description of method used: Process piping within the cell was removed up to the cell walls per FMP-04-22341. Removal of non-process lines was optional under the CERCLA removal action work scope. Non-process lines (water/steam) are also outside the scope of the RCRA closure. Additionally, in support of closure of inaccessible piping, samples were taken and analyzed per HNF-25105 Revision 0. Sample results demonstrated the effectiveness of pre-closure process piping flushing. Sample results (B1FXY6, B1FXY7, and B1FXY8) met the analytical closure standard (6.2.1.2).

Authorized Representative: Richard W. Bloom

Name

Signature

Date



## 241-Z D-5 Cell RCRA Closure

HNF-30206 Rev. 0

July 2006

### Transfer pump – Air driven diaphragm

Method of closure: Removed (7.1) / Sampled (6.2.1.2).

Material: Stainless Steel

Decontamination: Prior to initiation of this package, as part of the final transfer the system piping and tank was flushed with clean water by filling and twice.

Description of method used: The pump and discharge piping were removed; suction piping remained and is closed under the analytical standard. In support of closure of inaccessible piping, samples were taken and analyzed per HNF-25105 Revision 0. Sample results demonstrated the effectiveness of pre-closure process piping flushing. Sample results (B1FX Y6, B1FX Y7, and B1FX Y8) met the analytical closure standard (6.2.1.2).

Authorized Representative: Richard W. Bloom

Name

Signature

Date

7/6/06

### Agitator

Method of closure: Inspection (6.2.1.1)/Sampled (6.2.1.2).

Material: Stainless Steel

Decontamination: Prior to initiation of this package and final transfer the system piping and tank was flushed with clean water.

Description of method used: Agitator was also inspected during tank internal inspection to verify clean debris surface\*. Additionally, in support of closure of inaccessible piping, samples were taken and analyzed per HNF-25105 Revision 0. Sample results demonstrated the effectiveness of pre-closure process piping flushing. Sample results (B1FX Y6, B1FX Y7, and B1FX Y8) met the analytical closure standard (6.2.1.2).

Authorized Representative: Richard W. Bloom

Name

Signature

Date

7/6/06

\* Definition of clean debris surface from Table I, Alternative Treatment Standards for Hazardous Debris (40 CFR 268.45): "Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discoloration's, and soil and waste in cracks, crevices, and pits, may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area".

## 241-Z D-5 Cell RCRA Closure

HNF-30206 Rev. 0

July 2006

### Activities for Closure of the Concrete (7.2.3)

#### Tank cell floor and sump

Method of closure: Decontamination/Sampled (6.2.1.2).

Material: Painted concrete

Decontamination: Manual

Description of method used: The cell was manually cleaned initially by physically removing material from the floor and using mechanical wiping scraping with a surfactant under work package 2Z-04-07735. An additional process spills within the cell was observed beneath a flange on the transfer line to Tank Farms. The spill appeared to have occurred on a long term basis as evidenced by a residual salt buildup on the floor in the area of the leak. The salt material was water soluble but was mechanically removed to avoid increased airborne radioactive contamination levels in the cell. Due to the radiological contamination control issues in this cell, removal of the last residual dirt on the floor of the cell to meet the visual standard was not pursued for ALARA considerations since it would have posed an unnecessary risk to the workers. The floor and the sump of the cell was sampled and analyzed per HNF-25105 Revision 1. Sample results (B1J7N3 and B1J7N5) demonstrated the effectiveness of the decontamination and met the analytical closure standard (6.2.1.2).

Authorized Representative: Richard W. Bloom

Name

Signature

Date

 7/6/06

#### Tank cell walls

Method of closure: Inspection - Sampled (6.2.1.2)

Material: Painted concrete

Decontamination: N/A

Description of method used: Video inspection of the cell could not visually confirm process history of extensive cell flooding. No water mark was visible on the walls of the cell. The water soluble spill residuals associated with the transfer line to Tank Farms line leak appeared to be historic and may indicate that flooding of the D-5 cell was limited. A sample at a point on the wall at chest level was taken and analyzed per HNF-25105 Revision 1. Sample results (B1J7N4) met the analytical closure standard (6.2.1.2).

Authorized Representative: Richard W. Bloom

Name

Signature

Date

 7/6/06

## 241-Z D-5 Cell RCRA Closure

HNF-30206 Rev. 0

July 2006

### Void space beneath the tank

Method of closure: Inspection (7.2.3)

Material: Concrete

Decontamination: N/A

Description of method used: Video inspection of the cell did not indicate cracking of the tank base or a void space between the tank and base.

Authorized Representative: Richard W. Bloom

Name

Signature

Date

 7/6/06

### Soil beneath the cell (7.2.4)

Method of closure: Inspection - No pathway to soil (7.2.4)

Material: Soil

Decontamination: N/A

Description of method used: Video inspection did not reveal cracking in the tank base, cell floor or sump. Some minor surface cracking of cell walls was evident in the video but none penetrated the thickness of the concrete.

Authorized Representative: Richard W. Bloom

Name

Signature

Date

 7/6/06

### Conclusion

Based on activities performed under work package 2Z-04-07738, visual inspection and evaluation of the sample data, the portions of the 241-Z tank system within the D-5 Cell has met RCRA closure standards specified in DOE/RL-96-82.

### References

DOE/RL-96-82, *Hanford Facility Dangerous Waste Closure Plan, 241-Z Treatment and Storage Tanks*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

2Z-04-08451 - REMOVE AIR/WATER LINES INTO D5

Letter, R.A. Bushaw, CH2MHill to A. G. Westra, FH, "Results for Plutonium Finishing Plant TK-D5 Samples, Batch 288 Collected July 2004" CH2M -0402434, dated August 17, 2004.

2Z-04-07735 - D&D 241-Z TANK D5 / REMOVE PIPING & EQUIPMENT

HNF-25105 Revision 0, *Sampling and Analysis Plan for Characterization of 241-Z Tank System Piping*.

Letter, R.A. Bushaw, ATL to R. Clinton, FH, "Final Report for the Swab Samples Received from Plutonium Finishing Plant in November 2005, SAF Number R006-07" 05-ATL-118, dated December 8, 2005.

HNF-25105 Revision 1, *Sampling and Analysis Plan for Characterization of 241-Z Tank System Piping, Attachment B*.

Letter, G. P. Ritenour, ATL to R. Clinton, FH, "Final Report for the Swipe Samples from Plutonium Finishing Plant Received in May, 2006, SAF Number R006-023" 06-ATL-089, dated June 1, 2006.

<b>241-Z D-5 Cell RCRA Closure Attachment A - Sample Results</b>	<b>HNF-30206 Rev. 0</b>
	<b>July 2006</b>

## **ATTACHMENT A**

### **Sample Results**

241-Z D-5 Cell RCRA Closure Attachment A – Sample Results	HNF-30206 Rev. 0 July 2006
--	-------------------------------

**Pipe Sampling Data Summary (Samples B1FXY6, B1FXY7, B1FXY8)**

As part of RCRA closure of 241-Z tank system samples were taken at three locations in the piping system per HNF-25105 Revision 0, *Sampling and Analysis Plan for Characterization of 241-Z Tank System Piping*. The results of the sampling indicate that the analytical performance standard for clean closure of structures and materials specified in the closure plan, DOE/RL-96-82 revision 1, *Hanford Facility Dangerous Waste Closure Plan, 241-Z Treatment and Storage Tanks*, has been met. As summarized in the data summary, only trace levels of any constituents of concern (COC) were detected, well below any level of concern.

**DATA Summary:**

Three field samples and a field blank sample were analyzed. All results were well within regulatory limits. Most results were below detection limit, only trace levels of constituents of concern were detected.

Sample results in mg/L except pH Highest detected value reported						
COC	Waste Number	B1FXY6 Old D-8 inlet	B1FXY7 Newer D-8 inlet	B1FXY8 D-8 outlet	B1FXY9 Field Blank	Regulatory Limit
Corrosivity	D002	6.08	4.9	8.89	5.82	pH = < 2, >12.5
Carbon Tetrachloride	D019	< 0.3	< 0.3	< 0.3	< 0.3	0.50
Arsenic (As)	D004	< 0.04	< 0.04	0.05	< 0.04	5.00
Barium (Ba)	D005	0.0099 (J)	< 0.005	< 0.005	< 0.005	100.00
Cadmium (Cd)	D006	< 0.004	0.0052*	< 0.004	< 0.004	1.00
Chromium (Cr)	D007	0.0521	0.105	0.0232 (J)	< 0.0025	5.00
Lead (Pb)	D008	< 0.03	< 0.03	< 0.03	< 0.03	5.00
Selenium (Se)	D010	< 0.04	< 0.04	< 0.04	< 0.04	1.00
Silver (Ag)	D011	< 0.005	0.0131	< 0.005	< 0.005	5.00
Mercury	D009	< 0.0001	0.00018 (J)	< 0.0001	< 0.0001	0.20

\* Qualifier of "U" on cadmium analysis of sample B1FXY7 reflects non-detect of the result but since the QC duplicate analysis reported a value that was above the detection limit it would be used.

# **241-Z D-5 Cell RCRA Closure Attachment A – Sample Results**

HNF-30206 Rev. 0

July 2006

## **D-5 Batch 288 sample report**

As part transfer to Tank Farms samples were taken of the final batch from 241-Z. prior to transfer to tank farms. Due to the nature of the waste, the sampling protocol is focused on addressing criticality concerns with the solid fraction. This concern results in the centrifugal separation of the liquid and solid fraction of the waste prior to analysis. As reflected in the data summary below, of the constituents analyzed, no constituents of concern (COC) were detected above a regulatory level in either of the phases analyzed.

## **DATA Summary:**

Grab samples from the tank D-5 were sample were analyzed prior to the last transfer to Tank Farms. All reported results were within regulatory limits. Not all COC (Hg and Carbon tetrachloride) were fully analyzed and due to interference and sample dilution the detection level for Arsenic and Selenium were not below regulatory levels. Most results were below detection limit, only trace levels of constituents of concern were detected.

Sample results in µg/mL or µg/g Highest detected value reported					
COC	Waste Number	S04T000 660, 666, or 667 Liquid	Applicable Regulatory Limit	S04T000 664 and 665 Solids	Applicable Regulatory Limit
Corrosivity	D002	*	N/A	*	N/A
Carbon Tetrachloride	D019	-	0.5	-	10
Arsenic (As)	D004	< 5.14	5	<34.6	100
Barium (Ba)	D005	< 0.730	100	< 5.07	2000
Cadmium (Cd)	D006	< 0.420	1	< 2.92	20
Chromium (Cr)	D007	<b>3.95</b>	5	<b>74</b>	100
Lead (Pb)	D008	< 2.46	5	< 17.1	100
Selenium (Se)	D010	< 4.94	1	<34.3	20
Silver (Ag)	D011	<b>0.454</b>	5	<b>16.3</b>	50.0
Mercury	D009	<0.002	0.2	-	4

\* Liquid is pH adjusted prior to transfer to Tank Farms to above 13. After this batch was transferred the tank was refilled with clean water twice and transferred to Tank Farms. This flush water was not pH adjusted prior to transfer.

# **241-Z D-5 Cell RCRA Closure Attachment A – Sample Results**

HNF-30206 Rev. 0

July 2006

## **D-5 Cell Sampling Data Report (B1J7N3, B1J7N4, B1J7N5, B1J7N6)**

As part of RCRA closure of 241-Z tank system samples were taken at four locations in the D-5 Cell per HNF-25105 Revision 1, *Sampling and Analysis Plan for Characterization of 241-Z Tank System Piping, Attachment B*. Consistent with the sampling and analysis plan an additional sample was taken in a floor area where spill residuals from a historical piping leak had been cleaned up. The results of the sampling indicate that the analytical performance standard for clean closure of structures and materials specified in the closure plan, DOE/RL-96-82 revision 1, *Hanford Facility Dangerous Waste Closure Plan, 241-Z Treatment and Storage Tanks*, has been met. As summarized in the data summary, only trace levels of any constituents of concern (COC) were detected, well below any level of concern.

## **DATA Summary:**

Four field samples and a field blank sample were analyzed. All results were well within regulatory limits. Most results were below detection limit, only trace levels of constituents of concern were detected.

Sample results in µg/mL except pH Highest detected value reported							
COC	Waste #	B1J7N3 Floor	B1J7N4 Wall	B1J7N5 Sump	B1J7N6 Tank	B1J7N7 Field Blank	Derived Regulatory Concern Limit*
Corrosivity	D002	9.15	7.12	9.13	7.00	6.46	N/A
Carbon Tetrachloride	D019	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.125
Arsenic (As)	D004	< 0.059	< 0.059	< 0.059	< 0.059	< 0.059	1.25
Barium (Ba)	D005	< 0.007	< 0.007	0.0269	0.193	< 0.007	25.0
Cadmium (Cd)	D006	< 0.003	0.0032	0.0051	< 0.003	< 0.003	0.25
Chromium (Cr)	D007	0.014	< 0.014	0.045	< 0.014	< 0.014	1.25
Lead (Pb)	D008	< 0.036	< 0.036	0.125	< 0.036	< 0.036	1.25
Selenium (Se)	D010	< 0.064	< 0.064	< 0.064	< 0.064	< 0.064	0.25
Silver (Ag)	D011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	1.25
Mercury	D009	< 0.0004	< 0.0004	0.00116	< 0.0004	< 0.0004	0.05

\*Derived Regulatory Concern Limit" is based on the TCLP value associated with analysis of a solid sample, adjusted for dilutions associated with the sample analysis. A swipe was assumed to contain 2.5 grams of dried material that was extracted into 200 ml of water. Normal TCLP extraction involves 20 ml of solution per gram of waste so 2.5 grams would normally be extracted in 50 ml of solution. Rather than adjust the data by a multiple of 4 to reflect the dilution (200/50) the regulatory limit is reduced by a factor of 4, e.g. TCLP for lead = 5 ppm become 1.25 ppm or 1.25 µg/mL.



241-Z D-5 Cell RCRA Closure Attachment B – Cell Activity Log	HNF-30206 Rev. 0
	July 2006

**ATTACHMENT B**  
**Cell Activity log**

**241-Z D-5 Cell RCRA Closure  
Attachment B – Cell Activity Log**

HNF-30206 Rev. 0

July 2006

Date	Pit - Dive#	Comments
20-Dec-05	D5-1	Ladder inspection & bag waste
21-Dec-05	D5-2	Prep for waste load out
27-Dec-05	D5-3	Waste load out
28-Dec-05	D5-4	Size reduce pipes
4-Jan-06	D5-5	Waste load out (4 drums)
5-Jan-06	D5-6	Waste load out (3 drums)
6-Jan-06	D5-7	Size reduce pipes (HEPA vac failed)
9-Jan-06	D5-8	Waste load out
10-Jan-06	D5-9	Size reduce waste (hook up tygon to tank for vac)
11-Jan-06	D5-10	Waste load out
12-Jan-06	D5-11	Paint walls at grating level for visibility
16-Jan-06	D5-12	Size reduce pumps and pipe
17-Jan-06	D5-13	Waste load out
18-Jan-06	D5-14	Waste load out
19-Jan-06	D5-15	Cut pipe
20-Jan-06	D5-16	Waste load out
23-Jan-06	D5-17	Cut Pipe Task #1
24-Jan-06	D5-18	Cut Pipe Task #1
25-Jan-06	D5-19	Finish pipe cuts on Task #1
26-Jan-06	D5-20	Waste load out
30-Jan-06	D5-21	Cut pipe
31-Jan-06	D5-22	Cut pipe (early exit due to torn Frham suit)
2-Feb-06	D5-23	Cut pipe
3-Feb-06	D5-24	Cut pipe
6-Feb-06	D5-25	Waste load out (5 drums)
7-Feb-06	D5-26	Cut pipe
8-Feb-06	D5-27	Waste load out
9-Feb-06	D5-28	Waste load out (5 drums)
13-Feb-06	D5-29	Waste load out
14-Feb-06	D5-30	Cut pipe
15-Feb-06	D5-31	Waste load out
16-Feb-06	D5-32	Cut pipe
17-Feb-06	D5-33	Cut pipe
21-Feb-06	D5-34	Waste load out
22-Feb-06	D5-35	Cut pipe
23-Feb-06	D5-36	Install hand rail & 20" flex duct
27-Feb-06	D5-37	Waste load out (2 drums)
28-Feb-06	D5-38	Set up for below grating (spray bottom)
1-Mar-06	D5-39	Clean cell floor (high DAC problem ~1,740 DAC)
2-Mar-06	D5-40	Clean cell floor (high DAC again)

**241-Z D-5 Cell RCRA Closure  
Attachment B – Cell Activity Log**

HNF-30206 Rev. 0

July 2006

Date	Pit - Dive#	Comments
6-Mar-06	D5-41	Clean cell floor (high DAC again)
7-Mar-06	D5-42	Clean cell floor (high DAC again)
8-Mar-06	D5-43	Clean cell floor
14-Mar-06	D5-44	Set up video camera for below grating
15-Mar-06	D5-45	Install 20" duct below grating (PAPR problem)
16-Mar-06	D5-46	Clean cell floor
17-Mar-06	D5-47	Clean cell floor
20-Mar-06	D5-48	Waste load out
21-Mar-06	D5-49	Clean cell floor
22-Mar-06	D5-50	Cut pipe
23-Mar-06	D5-51	Cut pipe (early exit due to DAC)
27-Mar-06	D5-52	Stage waste from below grating
28-Mar-06	D5-53	Waste load out
29-Mar-06	D5-54	Clean cell floor
6-Apr-06	D5-55	Cut pipe
12-Apr-06	D5-56	Stage waste from below grating
13-Apr-06	D5-57	Waste load out
17-Apr-06	D5-58	Waste load out (5 drums)
18-Apr-06	D5-59	Cut pipe (finished below grating) - on OT
18-Apr-06	D5-60	Stage waste from below grating
19-Apr-06	D5-61	Clean floor (high DAC ~ 13K DAC)
20-Apr-06	D5-62	Waste load out - on OT
20-Apr-06	D5-63	Waste load out
24-Apr-06	D5-64	Clean floor
25-Apr-06	D5-65	Clean floor
26-Apr-06	D5-66	Clean floor & sump
27-Apr-06	D5-67	Clean cell floor
28-Apr-06	D5-68	Waste load out
1-May-06	D5-69	Drain & load out agitator fluid
2-May-06	D5-70	Layout plasma arc cut
3-May-06	D5-71	RCRA swipe samples, video inside tank, waste load out
4-May-06	D5-72	Set up for fogging tank
8-May-06	D5-73	Set up for fogging tank & waste load out
8-May-06	D5-74	Set up for fogging tank
9-May-06	D5-75	Install IH probes and tank exhaustor
10-May-06	D5-76	Install torch leads/gnd & waste load out
11-May-06	D5-77	Plasma arc cut door in tank wall
12-May-06	D5-78	Clean up from cut and install door guards
15-May-06	D5-79	Waste load out (finger puncture on flex duct wire)
16-May-06	D5-80	Waste load out (6 drums)
17-May-06	D5-81	Clean tank floor

**241-Z D-5 Cell RCRA Closure  
Attachment B – Cell Activity Log**

HNF-30206 Rev. 0

July 2006

Date	Pit - Dive#	Comments
18-May-06	D5-82	Clean tank floor
22-May-06	D5-83	Waste load out
23-May-06	D5-84	Mop tank walls
24-May-06	D5-85	NDA tank D5
25-May-06	D5-86	NDA floor / walls
26-May-06	D5-87	NDA floor / walls
30-May-06	D5-88	NDA floor / walls
31-May-06	D5-89	NDA floor / walls
1-Jun-06	D5-90	NDA floor / walls
5-Jun-06	D5-91	Waste load out (agitator shroud)
6-Jun-06	D5-92	Waste load out
8-Jun-06	D5-93	Waste load out

**DISTRIBUTION**

MSIN

U.S. Department of Energy, Richland Operations Office

E. M. Mattlin

A5-15

Fluor Hanford

R. W. Bloom

T3-10

B. J. Dixon

R3-32

B. J. Gray

T4-35

G. A. Johnston

T3-10

S. N. Luke

H8-40

A. G. Miskho

H8-40

R. W. Oldham

T5-57

A. L. Prignano

H8-40

S. B. Skeels

T5-30

Vista Engineering Technology, LLC

C. E. Ervin

N/A

P. C. Ohl

N/A

Lockheed Martin Information Technology

Central Files

B1-07

AR-241-Z TSD

H6-08

EDMC (2)

H6-08